

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 21

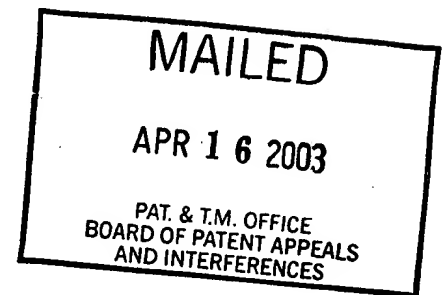
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte THOMAS J. HOLMAN

Appeal No. 2001-1797  
Application 09/023,170

ON BRIEF



Before JERRY SMITH, RUGGIERO and LEVY, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-20, which constitute all the claims in the application. An amendment after final rejection was filed on October 2, 2000 and was entered by the examiner.

The disclosed invention pertains to a memory system that has a system memory controller and one or more memory modules. Each memory module includes a memory module controller coupled to the system memory controller and a plurality of memory devices which are coupled to the memory module controller. A particular feature of the claimed invention is that the memory module controller receives a first memory transaction in a first format from the system memory controller and converts it into a second memory transaction in a second format for the plurality of memory devices.

Representative claim 1 is reproduced as follows:

1. A system comprising:

a system memory controller; and

a first memory module comprising:

a first plurality of memory devices;

a first memory module controller coupled to the system memory controller and the first plurality of memory devices, the first memory module controller to receive from the system memory controller a first memory transaction in a first format and to convert the first memory transaction into a second memory transaction in a second format for the first plurality of memory devices, the second format of the second memory transaction being different from the first format of the first memory transaction.

The examiner relies on the following reference:

Levy et al. (Levy)

4,045,781

Aug. 30, 1977

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Claims 1-6, 8, 9, 13 and 15-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Levy. Claims 7, 10-12 and 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Levy taken alone. Claims 1-20 also stand provisionally rejected on the ground of obviousness-type double patenting as being unpatentable over the claims of copending application Serial No. 09/023,172 and the claims of copending application Serial No. 09/023,234.

Rather than repeat the arguments of appellant or the examiner, we make reference to the brief and the answer for the respective details thereof.

#### OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the prior art rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

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It is our view, after consideration of the record before us, that the evidence relied upon supports each of the rejections made by the examiner. Accordingly, we affirm.

Appellant has indicated that for purposes of this appeal the claims within each rejection will all stand or fall together as a single group [brief, page 7]. Consistent with this indication appellant has made no separate arguments with respect to any of the claims on appeal. Accordingly, all the claims within each rejection will stand or fall together. Note In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983).

We consider first the rejection of claims 1-6, 8, 9, 13 and 15-20 under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Levy. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554,

220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

With respect to representative, independent claim 1, the examiner has indicated how he reads the invention of claim 1 on the disclosure of Levy [answer, pages 4-5]. Appellant argues that Levy fails to disclose the first memory module controller of claim 1. Specifically, appellant argues that Levy fails to convert the first memory transaction into a second memory transaction in a second format for the plurality of memory devices and Levy fails to disclose that the second format is different from the first format. Appellant notes that memory transceiver 41 and memory control and timing 42 of Levy are not related to converting or reformatting a memory transaction in a first format into a memory transaction in a second format [brief, pages 7-10]. The examiner responds that the only dispute is whether the memory module controller of Levy converts a received first memory transaction having a first format into a second memory transaction having a different format. The examiner points to various figures of Levy and explains that the data, address and control signals received from system controller 22 have clearly been reformatted before they are sent to memory

devices 44 and 45 by elements 41 and 42 of Levy [answer, pages 10-13].

We will sustain the examiner's anticipation rejection of claims 1-6, 8, 9, 13 and 15-20. Appellant's argument that Levy does not disclose converting a first memory transaction into a second memory transaction is not commensurate in scope with the claimed invention. Claim 1 does not require that the first and second memory transactions be different, but rather, claim 1 recites that the second memory transaction is in a different format from the first memory transaction. The first and second memory transactions can both relate to a write transaction, for example, and this is precisely the type of operation described in appellant's disclosure. In other words, the invention is disclosed as converting a read or write transaction in a first format into a read or write transaction in a second format.

The examiner is, therefore, correct in asserting that the only question is whether the transaction sent from memory transceiver 41 and memory control and timing 42 in Levy to the memories 44 and 45 is in the same format as the transaction sent from memory management 22 of Levy. We essentially agree with the examiner that since the control and timing signals sent to memories 44 and 45 of Levy are not the same as the control and

timing signals sent from memory management 22, the signals from unit 22 are not in the same format as the signals from units 41 and 42. Appellant's bare assertion that Levy does not teach the invention of claim 1 does not address the reasoning behind the examiner's rejection nor explain why the examiner's findings are erroneous. Therefore, appellant's arguments are not persuasive of error in the examiner's rejection.

We now consider the obvious rejection of claims 7, 10-12 and 14. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil,

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Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellant have been considered in this decision. Arguments which appellant could have made but chose not to make in the brief have not been considered and are deemed to be waived [see 37 CFR § 1.192(a)].

Although claim 1 was not rejected under 35 U.S.C. § 103, appellant's arguments in the brief are directed to claim 1. Appellant's arguments with respect to this rejection are the



exact same arguments we considered above. Since we have determined that Levy anticipates claim 1, Levy also renders claim 1 obvious because anticipation is the epitome of obviousness. Since appellant has not specifically argued the claims subject to this rejection, we sustain the examiner's rejection of claims 7, 10-12 and 14 for reasons discussed with respect to claim 1.

We now consider the examiner's provisional rejection of the claims based on obviousness-type double patenting. Appellant has not responded to this rejection in the brief although appellant has indicated a willingness to file a terminal disclaimer upon the finding of allowable subject matter. The indication of a willingness to file a terminal disclaimer at some future time does not constitute a substantive response to an obviousness-type double patenting rejection. Since the examiner's provisional rejections have set forth a prima facie case of obviousness-type double patenting, and since appellant has not responded to these rejections, we sustain each of the provisional rejections of the claims based on obviousness-type double patenting.

In summary, we have sustained each of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 1-20 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

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JERRY SMITH  
Administrative Patent Judge

JOSEPH F. RUGGIERO

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BOARD OF PATENT  
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